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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,309	12/02/2003	Shu Ling	OR03-07901	5166

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EXAMINER

DOAN, DUC T

ART UNIT	PAPER NUMBER
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2188

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/727,309

Applicant(s)

LING ET AL.

Examiner

Duc T. Doan

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Status of Claims*

Claims 1-34 are in the application.

Claims 1-34 are rejected.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

A person shall be entitled to a patent unless -

(a) the invention was known or used by other's in this country or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-5,7-16,18-34 rejected under 35 U.S.C. 102 (e) as being anticipated by Datta (US Pub 2003/0004998).

As for claim 1, Datta describes an automated method of performing inline invalidation of cached data, the method comprising: receiving at a data server a data request initiated by a requestor (Datta's page 12 paragraph 138 lines 1-3); identifying cached data to be invalidated before the requested data can be served to the requestor (Datta's page 13 paragraphs 143-144, key information such as fragment valid is created, modified); generating a response to the data request, wherein the response includes instructions to invalidate said cached data; transmitting the response toward the requestor; and at one or more caches: executing said instructions; and forwarding the response toward the requestor (Datta's page 10 paragraph 119 describes a set instruction to forwarding data to be stored in the proxy cache, the key information is also inserted into the template Fig 10: #1050 and sending the template to the proxy cache Fig 10: #1070) .

As for claim 2, the claim recites wherein said forwarding is performed only after said executing (Datta's page 11 paragraphs 133,139, describes the proxy to executing the get instruction, obtaining content from its memory, reassembling fragments and forwarding to user; page 8 paragraph 95).

As for claims 3-4, the claims recite wherein the cached data to be invalidated include data modified in the request (claim 3); wherein the cached data to be invalidated include stale versions of data requested in the data request (claim 4).

As for claim 5, the claim recites at a final cache, removing said instructions before serving the response to the requestor (Datta's page 8 paragraph 95).

As for claim 7, the claim rejected based on the same rationale as in the rejection of claim 1. wherein no invalidation message configured to invalidate the cached data, other than the

response, is forwarded from the data server (Datta's page 10 paragraph 119 describes a set instruction to forwarding data to be stored in the proxy cache, the key information is also inserted into the template Fig 10: #1050 and sending the template to the proxy cache Fig 10: #1070).

As for claims 8-9 the claim recite wherein said receiving comprises: receiving the data request at a first cache, wherein the data request results in a cache miss at the first cache; and forwarding the data request through one or more additional caches toward the data server, wherein the data request results in cache misses at each of the one or more additional caches (claim 8); wherein said transmitting comprises: forwarding the response through the one or more additional caches toward the requestor (claim 9). Datta's Fig 3B shows the requests travel through proxy caches toward the application servers; the application servers generate data/instructions and forwarding to dynamic proxy cache and toward the requestor (page 7 paragraph 90).

As for claim 10, the claim recites wherein said executing comprises: at each of the one or more additional caches: invalidating said cached data; and selectively caching data included in the response. Datta's page 13 paragraphs 144 further describes of generating a key to uniquely identify the cache in which the valid data is located.

Claims 11,12,23,24,32 rejected based on the same rationale as in the rejection of claim 1.

As for claim 13, Datta's page 8 paragraph 95 describes at a final cache coupled to the requestor, modifying the response to remove identification of the side effect before serving the response to the requestor (The proxy cache reassemble fragments then delivery to user).

As for claims 14-15, the claim recites wherein said implementing the side effect comprises implementing the side effect prior to caching data included in the response (claim 14, Datta's page 13 paragraph 147 describes the invalidating of a fragment is based on a replacement policy or an eviction policy); wherein said implementing the side effect comprises implementing the side effect after said forwarding (claim 15, Datta's page 9 paragraph 104 describes tag information includes a time to live; Thus the corresponding fragment will not be obsolete until the time to live expire).

As for claim 16, Datta describes wherein said implementing the side effect comprises implementing the side effect before a specified event (Datta's page 9 paragraph 104 describes tag information includes a time to live; Thus the corresponding fragment will not be obsolete until the time to live expire).

As for claim 18, Datta's page 13 paragraph 148 describes wherein the side effect comprises invalidation of one or more data objects cached in a subset of the set of caches.

Claims 19,26 rejected based on the same rationale as in the rejection of claim 7.

As for claim 20, the claim recites wherein the side effect comprises a password (Datta's Fig 3B describes the requests from user must travel through a firewall. Thus Datta suggests the processing of requests comprise steps such as user authentication in which password is used for authentication.

As for claims 21-22, the claims recite wherein the side effect comprises an update to a cache program (claim 21, Datta's page 13 paragraph 148 describes a fresh fragment is generated and sending to proxy caches; Datta's page 3 paragraph 27 describes the content fragment can be

a script); wherein the side effect comprises a replacement cache program (claim 22, Datta's page 13 paragraph 148, replaced segments).

As for claim 25, the claim recites wherein the side effect comprises the invalidation of data cached on a subset of the one or more caches (Datta's page 13 paragraphs 144,148 describes a bit vector to indicate the caches in which a valid fragment is valid/invalid).

Claim 27 rejected based on the same rationale as in the rejection of claim 20.

Claim 28 rejected based on the same rationale as in the rejection of claim 21.

Claim 29 rejected based on the same rationale as in the rejection of claim 22.

Claims 30 rejected based on the same rationale as in the rejection of claim 15.

Claims 31 rejected based on the same rationale as in the rejection of claim 16.

As for claim 33, wherein the first cache is configured to forward the first response only after invalidating the identified cached data (Datta's page 13 paragraph 147 describes the replacement policy in which data is evicted in cached then data forwarding to user).

As for claim 34, the claim recites wherein the first cache is configured to forward the first response before invalidating the identified cached data. The claim rejected based on the same rationale as in the rejection of claim 15.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6,17 rejected under 35 U.S.C. 103(a) as being unpatentable over Datta (US Pub 2003/0004998) and in view of Ims et al (US Pub 2004/0162886).

As for claim 6, the claim recites wherein said generating comprises inserting in the response an ESI (Edge Side Includes) token configured to identify said cached data. Although Datta describes the syntax for the tags in page 9 paragraphs 106-107. However Data does not specifically mention ESI type's tags. However, Ims describes a runtime service to interpret the ESI include statements and attaching additional dynamic information to the outbound response message before sending it to the fragment cache/assembler. It would have been obvious to one of ordinary skill in the art at the time of invention to include runtime service as suggested by Imn in Datta's system to sending additional correlator data in the outbound response message, thereby allowing the subsequence requests to be handled in a correlated manner with previously stored information at the original server (Ims's page 2 paragraphs 55,59,60).

Claim 17 rejected based on the same rationale as in the rejection of claim 6.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Douglis et al (US Pub 2003/0009563) describes a method of dynamically generates content based on ESI tags.



When responding to the office action, Applicant is advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Doan whose telephone number is 571-272-4171. The examiner can normally be reached on M-F 8:00 AM 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Kevin L. Ellis**  
**Primary Examiner**

